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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Cornelis Reinier Johannes Schonenberg

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1287

7590

01/05/2004

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EXAMINER

LE, UYEN CHAU N

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

MA

<b>Office Action Summary</b>	<b>Application No.</b> 09/787,093	<b>Applicant(s)</b> SCHONENBERG ET AL.	
	<b>Examiner</b> Uyen-Chau N. Le	<b>Art Unit</b> 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-53 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Prelim. Amdt/Amendment***

1. Receipt is acknowledged of the Amendment filed 02 October 2003.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “resilient holder is arranged around at least a part of the housing” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. Claim 51 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 51, lines 12-13: “the distance between the standing walls amounts to” is not clear.

Appropriated clarification and verification is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 23-24, 31-32, 43, 46-49 and 51-53 rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al (GB 2,345,370) in view of Bridgelall et al (US 5,504,316).

Re claims 23-24, 31-32, 43, 46-49 and 51-52: Tamburrini et al discloses a device/barcode reader for scanning and/or recognizing one or more barcodes comprising a laser light source 550 for transmitting laser light 556; a rotatable polygonal mirror (figs. 16-17) for reflecting the transmitted laser light 556; a number of fixedly disposed flat mirrors [564, 565, 566, 568, 580, 581, 582 and 583] for reflecting laser light 556 (p. 21, line 15 through p. 24, line 36); collection mirror and detector, which serves as a pick-up element for picking up laser light 556 scattered by a barcode (page 23, lines 8+); a compact housing (figs. 6-7 & 10) to be hand held in which the laser light source 550, the polygonal mirror, the flat mirrors [564, 565, 566, 568, 580, 581, 582 and 583] and

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the pick-up element are arranged, wherein the device is to be used alternately in handheld mode and fixed mode (page 4, lines 25+) and the housing is completely constructed from a bottom side which is substantially flat for placement of the housing (see fig. 1), a top side, a standing rear wall, a standing front wall and two standing side walls arranged there-between (see figs. 6-7 and 10; p. 18, lines 3-19; p. 19, lines 10-26); a sensing circuit which serves as a position determining means for determining the position of the rotatable polygonal mirror and a timing means, which serves as a control means for switching the laser light source on or off depending on the position of the rotatable polygonal mirror (p. 27, lines 1-31); wherein the rotatable polygonal mirror comprises a central part and mirror surfaces standing from a first side thereof and is provided on the other side with receiving means which receives a drive shaft for rotational driving of the rotatable polygonal mirror (fig. 16; page 21, lines 15+).

Tamburrini et al fails to teach or fairly suggest that a fixed mode scan pattern or a hand mode scan pattern is cast through the standing front wall and both scan patterns being cast through one and the same window 38 in the housing; a resilient holder is arranged around at least a part of the housing.

Bridgelall et al teaches both scan patterns (e.g., fixed mode or a hand mode) being cast through one and the same window in the housing of a device 30 (figs. 1b-1c; col. 8, lines 17+; col. 9, lines 37+; and col. 12, lines 61+); a resilient holder is arranged around at least a part of the housing (figs. 20A-20B).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Bridgelall et al into the teachings of Tamburrini et al in order to provide Tamburrini et al with a more feasible system (i.e., only one scanning window is required instead of two). Furthermore, such modification would provide Tamburrini et al with a

more compact system wherein one window would occupy less space, thus a smaller size can be manufactured, and therefore providing the user with a flexibility of carrying the apparatus along conveniently (e.g., in his/her pocket, etc.). Moreover, such modification would provide Tamburrini et al with a more accurate system (e.g., in a fixed mode) wherein the reading device is secure within the resilient, and thus preventing the device from moving during reading process.

Re claim 53, Tamburrini et al as modified by Bridgelall et al have been discussed above but fail to teach or fairly suggest that the distance between the standing side walls substantially amounts to 2.4 inches, the distance between the bottom side and the top side substantially amounts to 3.3 inches And the distance between the standing rear wall and the standing front wall substantially amounts to 2.0 inches.

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the dimensions of device as taught by Tamburrini et al/Bridgelall et al with the above dimensions in order to provide Tamburrini et al/Bridgelall et al with a more compact system (i.e., due to its portable size), which allows the user/operator to carry along conveniently (e.g., in his/her pocket, etc.). Furthermore, such modification would have been an obvious design variation and a substitution of equivalents well within the ordinary skill in the art, for better handling of the apparatus.

7. Claims 25-28, 33-34, 44 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al as modified by Bridgelall et al as applied to claim 23 above, and further in view of Krichever et al (US 4,816,661). The teachings of Tamburrini et al/Bridgelall et al have been discussed above.

Re claims 25-28, 33-34, 44 and 50: Tamburrini et al/Bridgelall et al has been discussed above and further discloses a folded mirror 273 (Tamburrini et al: p. 10, lines 16+ and p. 16, lines

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13+); a movable mirror (Tamburrini et al: p. 11, lines 22-36); a single lens is moved from one position to another (Tamburrini et al: p. 29, lines 12+), but fails to teach or fairly suggest in the first position of which a substantially flat front mirror surface of the mirror reflects the laser light incident thereon and in the second position of which a substantially concave rear mirror surface reflects the laser light incident thereon.

Krichever et al teaches a folding mirror 186 is foldable around a shaft 174 (figs. 7-9; col. 4, lines 5+ and col. 6, lines 6+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate a foldable mirror as taught by Krichever et al into the teachings of Tamburrini et al/Bridgelall et al in order to enhance a deflective capability of the scanning system, which would provide a large depth of field for the scanner (e.g., causing the laser beam to traverse different path lengths within the scanner), and thus a barcode located anywhere within the overall depth of field of the scanner can be read. Furthermore, such modification would provide Tamburrini et al/Bridgelall et al with a more feasible and compact system (i.e., one single mirror would accommodate two types of surfaces: flat and concave rather than two dedicated mirrors, which would reduce the occupancy of space, thus a smaller size of the apparatus can be accomplished, and therefore, reducing the cost of facilitating).

8. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al as modified by Bridgelall et al as applied to claim 23 above, and further in view of Khowles (US 4,958,894). The teachings of Tamburrini et al/Bridgelall et al have been discussed above.

Re claims 29 and 30, Tamburrini et al/Bridgelall et al has been discussed above but fails to teach or fairly suggest that spring means arranged in the housing urge the operating member

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partially out of the housing whereby the folding means carry the foldable mirror into the second position and locking means for locking the operating member with the foldable mirror in the first position.

Khowles teaches a coil 66, which serves as spring means, for pulling and pushing the bore 70 causing the mirror to oscillate about axis 24 and bumper 74, which serves as locking means, for keeping the mirror in position (fig. 2; col. 4, line 60 through col. 5, line 42).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Khowles into the teachings of Tamburrini et al/Bridgelall et al in order to provide Tamburrini et al/Bridgelall et al with a more accurate system wherein the mirror can be locked/kept in a desired position during operating/reading process, preventing the mirror from moving back and forth between the first and second positions, and thus providing a more accurate reading/scanning result.

9. Claims 35-36, 38-42 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al as modified by Bridgelall et al as applied to claim 23 above, and further in view of Harris (US 5,175,421). The teachings of Tamburrini et al/Bridgelall et al have been discussed above.

Re claims 35-36, 38-42 and 45: Tamburrini et al/Bridgelall et al have been discussed above but fail to teach or fairly suggest that the polygonal mirror is placed with the-outer ends thereof on the rotating support member.

Harris teaches a deflector assembly 52, which is a polygonal mirror is placed with the-outer ends thereof on the rotating support member (fig. 2; col. 3, lines 50+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of Harris into the system as taught by Tamburrini et



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al/Bridgelall et al in order to provide Tamburrini et al/Bridgelall et al due to the fact that such modification would have been an obvious design variation and a substitution of equivalents well within the ordinary skill in the art, for better arrangements of components within the apparatus, and therefore an obvious expedient.

10. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamburrini et al as modified by Bridgelall et al and Harris as applied to claim 35 above, and further in view of Quinn et al (US 5,629,510). The teachings of Tamburrini et al/Bridgelall et al/Harris have been discussed above.

Re claim 37, Tamburrini et al/Bridgelall et al/Harris has been discussed above but fails to teach or fairly suggest that double-sided tape provided with adhesive is arranged between the ends of the polygonal mirror and the rotating support member.

Quinn et al teaches a parabolic mirror 20 is affixed to the rotating support member/rotor body 22 by adhesive surface 62 (figs. 8 and 10; col. 5, lines 60+).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the teachings of using adhesive technique as taught by Quinn et al for affixing the mirror to the rotating support member into the teachings of Tamburrini et al/Bridgelall et al/Harris in order to provide Tamburrini et al/Bridgelall et al/Harris with a more feasible system (i.e., due to the less cost of adhesive). Furthermore, such modification would provide Tamburrini et al/Bridgelall et al/Harris with a more accurate system wherein the adhesive would keep the mirror affixed to the rotating support member, preventing the mirror from loosing and rotating at different speed/angle with the rotating support member, and thus preventing the system from producing an inaccurate result from an inaccurate reading.

***Response to Arguments***

11. Applicant's arguments with respect to claims 23-46 have been considered but are moot in view of the new ground(s) of rejection.

12. In response to applicant's arguments against the references individually (pages 10 and 11), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents to Ahten et al (US 6575368); McMillan (US 4766297); Bassett (US 5132523); Wike, Jr., (US 5198650); Rando (US 5214270); Katoh et al. (US 5693930); Katoh et al. (US 5992747); Swift et al. (US 6053413); Kumagai et al. (US 6435413); Katoh et al. (US 5314631); Kumagai et al. (US 6216953) are cited as of interest and illustrate a similar structure to an apparatus and system of a device for reading a barcode.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the


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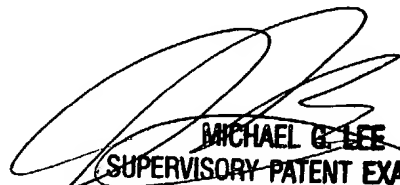
date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen-Chau N. Le whose telephone number is 703-306-5588 or (571) 272-2397, which will be effected 15 January 2003. The examiner can normally be reached on SUN, M, W, F 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL G LEE can be reached on (703) 305-3503. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
Uyen-Chau N. Le  
December 19, 2003

  
MICHAEL G. LEE  
SUPERVISORY PATENT EXAMINER  
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